IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SEPRACOR, INC., Plaintiff, v. DEY, L.P. and DEY, INC., Defendants.	C.A. No. 06-113 (JJF) (Consolidated)
SEPRACOR, INC., Plaintiff, v. BARR LABORATORIES, INC., Defendant.	**REDACTED** **PUBLIC VERSION**

DEFENDANTS DEY, L.P. AND DEY, INC.'S
RESPONSIVE CLAIM CONSTRUCTION BRIEF

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TABLE OF CONTENTS

TABLE OF AUTHORITIES iii

I. INTRODUCTION 1

II. ARGUMENT 1

A. Supplemental Legal Standards for Claim Construction 1

B. The Proper Construction of the Phrases "While Reducing Side Effects Associated with Chronic Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '755 Patent 2

1. Sepracor's proposed construction of "side effects" impermissibly broadens the scope of the claim by including side effects that were unknown at the time of the invention 4

2. Sepracor's proposed construction of "side effects" includes side effects associated with the R(-) isomer of racemic albuterol, a construction unsupported by and contrary to the specification 7

3. Barr's proposed definition of the term "side effects" does not include side effects typically associated with beta-adrenergic drugs 9

4. Sepracor's proposed construction of the term "chronic administration" is incorrect to the extent it is not limited to periodic or prophylactic administration 10

C. The Proper Construction of the Phrase "Chronically Administering" in the '755 Patent 12

D. The Proper Construction of the Phrases "While Reducing Side Effects Associated with the Acute Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '994 Patent 12

E. The Proper Construction of the Phrases "While Reducing Side Effects Associated with the Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '090 Patent 13

F. The Proper Construction of the Phrase "Inducing Bronchodilation or Providing Relief of Bronchospasm" in the '002 Patent 14

G. The Proper Construction of the Phrases "While Reducing the Concomitant Liability of Adverse Effects Associated with Racemic Albuterol" and "While Simultaneously Reducing Said Adverse Effects" in the '002 Patent 17

H. The Proper Construction of the Phrases "Treating Bronchospasm in a Patient with Reversible Obstructive Airway Disease" and "Preventing Bronchospasm in a Patient with Reversible Obstructive Airway Disease" in the '993 Patent 18

III. CONCLUSION 22

TABLE OF AUTHORITIES

Cases

Board of Trustees of Stanford Univ. v. Roche Molecular Sys., Inc.,
528 F. Supp. 2d 967 (N.D. Cal. 2007) 6

Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.,
334 F.3d 1294 (Fed. Cir. 2003) 15, 19

Kopykake Enterprises, Inc. v. Lucks Co.,
264 F.3d 1377 (Fed. Cir. 2001) 2, 6

Markman v. Westview Instruments, Inc.,
52 F.3d 967 (Fed. Cir. 1995) 2

Marsh-McBirney, Inc. v. Montedoro-Whitney Corp.,
882 F.2d 498 (Fed. Cir. 1998) 6

Mass. Inst. of Tech. v. Abacus Software,
462 F.3d 1344 (Fed. Cir. 2006) 2

Medrad, Inc. v. MRI Devices Corp.,
401 F.3d 1313 (Fed. Cir. 2005) 15

Phillips v. AWH Corp.,
415 F.3d 1303 (Fed. Cir. 2005) 2, 4, 7, 15

Schering Corp. v. Amgen Inc.,
222 F.3d 1347 (Fed. Cir. 2000) 2, 4, 5, 6

Southwall Techs., Inc. v. Cardinal IG Co.,
54 F.3d 1570 (Fed. Cir. 1995) 8

SuperGuide Corp. v. DirectTV Enterprises,
358 F.3d 870 (Fed. Cir. 2004) 6

Vitronics Corp., v. Conceptronic, Inc.,
90 F.3d 1576 (Fed. Cir. 1996) 16

Wang Labs., Inc. v. American Online, Inc.,
197 F.3d 1377 (Fed. Cir. 1999) 8

Statutes

35 U.S.C. § 355(j)(2)(A)(v) 21

I. INTRODUCTION

The definitions Dey, L.P and Dey, Inc. (collectively "Dey") proposed in its opening claim construction brief comport with well-settled principles of claim construction. Dey's constructions are consistent with the plain and ordinary meanings of the disputed claim terms and/or phrases—meanings as they would have been understood by one of skill in the art at the time of the invention. They are based on intrinsic evidence such as the context of the terms in the claims, the patent specification and the arguments Sepracor made during the prosecution of the patents in suit.

In contrast, Sepracor, Inc.'s ("Sepracor") definitions are inconsistent with the plain language of the claims, the specification, and the patent prosecution history. In an attempt to impermissibly broaden the scope of its claims, Sepracor abandons positions it took during prosecution of the method-of-use patents.[1] It relies primarily on extrinsic evidence and dictionary definitions. Indeed, for some terms, Sepracor does not state from where it obtained the "plain and ordinary meaning." In other cases it argues a term should be construed to have the plain and ordinary meaning but does not state what that meaning is. Sepracor's attempt to broaden the meaning of its claims ignores the previous positions it adopted before United States Patent and Trademark Office, contravenes well-established patent law and asks this Court to grant the inventors coverage for inventions they did not make.

II. ARGUMENT

A. Supplemental Legal Standards for Claim Construction

The words of a claim must be given their ordinary and customary meaning or "the meaning that the [words] would have to a person of ordinary skill in the art in question at the time of the invention, i.e. as of the effective filing date of the patent application." *Phillips v.*

[1] The "method-of-use patents" are U.S. Patent Nos. 5,362,755 ("the '755 patent"), 5,547,994 ("the '994 patent"), 5,760,090 ("the '090 patent"), 5,844,002 ("the '002 patent") and 6,083,993 ("the '993 patent").

AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005); *see also Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 986 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). In determining whether the meaning of a term may include or cover later-developed technology, it is appropriate to determine the mode of operation of the device at the time the patent application was filed. *Mass. Inst. of Tech. v. Abacus Software*, 462 F.3d 1344, 1353 (Fed. Cir. 2006); *Kopykake Enterprises, Inc. v. Lucks Co.*, 264 F.3d 1377, 1383 (Fed. Cir. 2001); *Schering Corp. v. Amgen Inc.*, 222 F.3d 1347, 1354 (Fed. Cir. 2000). Only when the written description of the invention makes clear that a claim term is intended to encompass other known technologies—beyond those expressly described—is it appropriate to construe claims broadly to include such known technologies. *Kopykake*, 264 F.3d at 1383. However, "when a claim term understood to have a narrow meaning when the application is filed later acquires a broader definition, the literal scope of the term is limited to what it was understood to mean at the time of filing." *Id.* (citing *Schering*, 222 F.3d at 1352-54).

B. The Proper Construction of the Phrases "While Reducing Side Effects Associated with Chronic Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '755 Patent

The parties dispute the meaning of "side effects" and "chronic administration" found within the phrases "while reducing side effects associated with chronic administration of racemic albuterol" and "while simultaneously reducing undesirable side effects" in claim 1 of the '755 patent.[2] The table below summarizes the parties' proposed constructions for the terms "side effects" and "chronic administration."

[2] Exhibit 25 provides the parties' proposed constructions for each disputed claim term and/or phrase.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"side effects"	The side effects are those associated with chronic administration of racemic albuterol. The side effects are not limited in scope to the examples that are specifically identified in the patent specification.	Beta-adrenergic side effects and teratogenic effects associated with the periodic or prophylactic administration of albuterol that are caused directly by the S(+) enantiomer of albuterol.	Central nervous system effects (such as tremor, nervousness, shakiness, dizziness and increased appetite), cardiac effects (such as cardiac arrhythmia), and teratogenic effects associated with chronic administration of racemic albuterol.
"chronic administration"	To administer the drug to a human on a ***recurring*** basis to prevent or reduce the extent to which bronchospasms occur.	Periodic or prophylactic administration.	"Chronic" should mean "prophylactic or periodic."

With respect to "side effects" the parties have proposed three meanings that differ in scope. Sepracor proposes that "side effects" broadly refer to those associated with racemic albuterol and are not limited in scope. (Sepracor Br. at 10-13). Dey proposes that "side effects" are limited to beta-adrenergic[3] or teratogenic effects caused by the S(+) enantiomer of albuterol. Barr proposes that "side effects" are specifically limited to those side effects identified in the specification at col. 3, lines 28-31, 33-35 of the '755 patent. (Barr Br. at 11).

Sepracor and Dey have also proposed different meanings for the term "chronic administration." Sepracor argues that "chronic administration" means "to administer the drug to a human being on a recurring basis to prevent or reduce the extent to which bronchospasms occur." (Sepracor Br. at 14). Dey believes that the prosecution history requires "chronic administration" to be defined as periodic or prophylactic administration. (Dey Br. at 25-26).

[3] Sepracor attempts to dismiss Dey's definition by stating that Dey coined the term "beta-adrenergic side effects" and that a "secondary Markman hearing" would be necessary to construe the "newly-coined" term. (Sepracor Br. at 12 n. 12). While Dey believes the ordinary and plain meaning of the term is clear, to eliminate any uncertainty, the term, as used by Dey, means side effects typically associated with beta-adrenergic drugs as of the priority date, January 5, 1990. *See* Ex. 5 at DLEV011525, col. 1 ll. 56-63.

1. Sepracor's proposed construction of "side effects" impermissibly broadens the scope of the claim by including side effects that were unknown at the time of the invention

Sepracor asserts that the term "side effects" is "broad and can constitute any side effect associated with chronic administration of racemic albuterol." (Sepracor Br. at 10). Specifically, Sepracor asserts that in addition to those "side effects" specifically listed in the patent specification, the term "side effects" also includes those "not specifically enumerated in the specification" including, for example, airway hyperreactivity. (Sepracor Br. at 10-11). Sepracor seeks to convince this Court to construe the term "side effects" to mean all side effects including those that were unknown as of the filing date of the patent application and those side effects that have yet to be discovered.

Sepracor's proposed construction violates basic principles of claim construction and as a result cannot be correct. A claim must be construed as it would have been understood by a person of ordinary skill in the art at the time the application for the patent was filed. *Phillips*, 415 F.3d at 1313 ("the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."). Accordingly, the term "side effects" cannot be construed to cover side effects unknown at the time of the invention, including side effects not yet discovered. *See Id.* For this reason alone, Sepracor's construction cannot be correct.

In *Schering*, the Federal Circuit addressed whether the scope of a claim term could be broadened to include technology unknown at the time of the invention. 222 F.3d at 1353. The issue in *Schering* concerned the meaning and scope of the term "INF-alpha." *Id.* at 1351. At the time of the invention scientists were aware of only two varieties of interferon (fibroblast interferons and leukocyte interferons). *Id.* The applicant originally referred to "leukocyte

interferon," in the patent application, but six months later, after a committee of scientists published new terminology to describe interferon, the applicant substituted "INF-alpha" for "leukocyte interferon." *Id.* at 1352. The applicant amended the written description, explaining that change in nomenclature reflected the scientific knowledge at the time and that "leukocyte interferon is designated INF-alpha." *Id.* Years later, scientists discovered that there were various subtypes of INF-alpha. *Id.* at 1351. Scientists also learned that the applicant's DNA inserts coded specifically for one particular subtype, INF-alpha-1. *Id.*

The Federal Circuit held that the claim term "INF-alpha" could not be construed to include the interferon subtypes that were discovered after the filing date. *Id.* at 1353. The Court reasoned that because "at the time of the '901 application, neither [the inventor] nor the others skilled in the art knew of the existence of, let alone the identity of, the specific polypeptides now identified as subtypes of INF-alpha, those subtypes cannot be within the scope of the claims.". The Federal Circuit further held that "the [claim] term as used in the . . . patent . . . did not and could not enlarge the scope of the patent to embrace technology arising after its filing." *Id.*

Similar to the patentee's arguments in *Schering*, Sepracor argues here that the term "side effects" incorporates material both known and unknown as of the filing date of the patent application. (Sepracor Br. at 13). For example, according to Sepracor the term "side effects" includes hyperreactivity, which was discovered and first disclosed in 1991, over a year after the January 1990 application date. (Sepracor Br. at 13). The specification does not support Sepracor's broad interpretation. The specification states that the claimed method reduces "undesirable side effects . . . *typically associated with* beta-adrenergic drugs." Ex. 5 at DLEV011525, col. 1 ll. 57-61 (emphasis added).[4] By using the term "typically associated with,"

[4] Dey Exhibits 1 through 24 are contained in Volumes I, II and III attached to the Declaration of Sam V. Desai in support of Dey's Opening Claim Construction Brief dated April 10, 2008. (*See* D.I. 273-75.) Dey Exhibits 25-27 are contained in Volume IV attached to the Declaration of Sam V. Desai in support of Dey's Responsive Claim Construction Brief dated May 1, 2008.

Sepracor explicitly limited the term side effects to those side effects that were known to be characteristic of beta-adrenergic drugs as of the January 5, 1990 filing date. *See SuperGuide Corp. v. DirectTV Enterprises*, 358 F.3d 870, 879 (Fed. Cir. 2004) (discussing *Kopykake*, 264 F.3d 1377 (Fed. Cir. 2001). During prosecution, Sepracor admitted that a reduction in airway hyperreactivity was a "previously undisclosed advantage." Ex.10 at DLEV012157. Moreover, when asked if there were any other side effects that albuterol caused, inventor Dr. James Young, testified that

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Therefore, the term "side effects" cannot be construed to include hyperreactivity which was neither "typically associated with" beta-adrenergic drugs or known at the time of the invention.

Sepracor's proposed definition of "side effects" is flawed for the additional reason that it is unlimited in scope because it includes those side effects that have yet to be discovered. Such a proposed construction cannot be correct. *See Schering*, 222 F.3d at 1354 (declining to interpret INF-alpha to include all subtypes of INF-alpha because doing so "would reward [the inventor] for inventions he did not make.").

Sepracor may argue that there are circumstances in which a claim term may embrace or encompass later developed technology. *See e.g., SuperGuide*, 358 F.3d at 881; *Marsh-McBirney, Inc. v. Montedoro-Whitney Corp.*, 882 F.2d 498, 504 (Fed. Cir. 1998); *Board of Trustees of Stanford Univ. v. Roche Molecular Sys., Inc.*, 528 F. Supp. 2d 967, 980 (N.D. Cal. 2007). That argument does not apply here because this line of cases requires that one of skill in the art at the time of the invention was aware of or knew of the existence of a technology that might, in the future, be developed such that it was encompassed by the claimed invention. *See SuperGuide*, 358 F.3d at 880 n. 6, *Marsh-McBirney*, 882 F.2d at 504-05, *Board of Trustees of Stanford Univ.*, 528 F. Supp. at 981. Even if the specification did not limit the side effects to

those "typically associated with beta-adrenergic drugs" at the time of the invention, under this line of cases, hyperreactivity would have had to have been a known side effect of beta-adrenergic drugs as of the patent filing date. As stated above, hyperreactivity was an unknown side effect at the time of the invention. Sepracor's proposed claim construction fails because Sepracor cannot expand the scope of its claims to include side effects unknown at the time of the invention and not described in the specification. Sepracor's attempts to expand the scope of its claims to include side effects not yet discovered are similarly flawed.

Sepracor's attempt to broaden the scope of its claim limitation is troublesome for yet another reason. As previously stated, hyperreactivity is not identified in the specification. Construing the term side effects to include hyperreactivity would violate the written description and enablement requirements, which require that claim terms "find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." *Phillips*, 415 F.3d at 1316-17.

For all of the reasons discussed above, Sepracor's construction of the term "side effects" is wrong and should not be adopted by this Court.

2. Sepracor's proposed construction of "side effects" includes side effects associated with the R(-) isomer of racemic albuterol, a construction unsupported by and contrary to the specification

Sepracor's proposed construction of "side effects" is incorrect for the additional reason that Sepracor asserts that the term "side effects" means "any side effect associated with chronic administration of racemic albuterol," whether caused by the R(-) isomer or the S(+) isomer. (Sepracor Br. at 10). Sepracor's proposed construction is unsupported by the specification and the prosecution history. The '755 patent specification provides that R(-) albuterol "does not exhibit the adverse side effects of many beta-adrenergic drugs." Ex. 5 at DLEV011525, col. 1 ll. 60-61. Therefore, one of ordinary skill in the art would understand from reading the

specification that optically pure R(-) albuterol does not cause beta-andrenergic side effects. The specification also informs one of skill in the art that "racemic albuterol can cause teratogenic effects, which are believed to be associated with the S(+) isomer." Ex. 5 at DLEV011525, col. 1 ll. 64-66. Accordingly, the side effects referenced in the specification must only refer to those beta-adrenergic or teratogenic side effects caused by the S(+) enantiomer.

Sepracor's proposed construction is also unsupported by and inconsistent with the prosecution history. During prosecution, Sepracor told the Patent Office that the side effects the claim language referred to were those "associated with the racemic mixture or the therapeutically inactive isomer, i.e. the S(+) isomer, of albuterol, but not with the R(-) isomer." Ex. 9 at DLEV012112 (emphasis in original). That is, Sepracor told the Patent Examiner that it was referring to those side effects associated with the racemic mixture that are caused by the S(+) isomer and not the R(-) isomer. Removal of the S(+) isomer will, therefore, eliminate those side effects associated with the racemic mixture that are caused by the S(+) isomer. By representing to the Patent Office that the "undesirable side effects" were those associated with the S(+) isomer, but not with the R(-) isomer, Sepracor cannot now broaden its claims to encompass side effects associated with the R(-) isomer of albuterol. *Wang Labs., Inc. v. American Online, Inc.*, 197 F.3d 1377, 1383 (Fed. Cir. 1999); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576-78 (Fed. Cir. 1995). Finally, inventor James Young testified that

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Based on the specification and the prosecution history, the term "side effects" must refer to beta-adrenergic or teratogenic side effects caused by the S(+) enantiomer. Accordingly, Sepracor's proposed construction of the term "side effects" cannot be correct.

3. Barr's proposed definition of the term "side effects" does not include side effects typically associated with beta-adrenergic drugs

Barr's proposed construction of the claim term "side effects" is more closely aligned with Dey's proposed construction, however, because it ignores language in the specification, it is too narrow in scope. Barr proposes that the term "side effects" be construed to mean only those side effects specifically listed in column 3, lines 28-31, 33-35 of the patent specification. Specifically, these include: "[c]entral nervous system effects (such as tremor, nervousness, shakiness, dizziness and increased appetite), cardiac effects (such as cardiac arrhythmia), and teratogenic effects associated with chronic administration of racemic albuterol." (Barr Br. at 10). By limiting the scope of side effects to include only those side effects specifically listed in the specification, Barr proposes a definition that is the polar opposite of Sepracor's. Barr's definition is too narrow in scope because it ignores language in the specification indicating that the specified side effects are exemplary of the beta-adrenergic side effects one of ordinary skill in the art would understand occur when racemic albuterol is administered. The specification reads:

> The present method provides a safe, effective method for treating asthma while reducing undesirable side effects, *for example*, tremor, nervousness, shakiness, dizziness and increased appetite, and particularly cardiac arrhythmia, *typically associated* with *beta-adrenergic drugs*.

Ex. 5 at DLEV011524, col. 1, ll. 56-61 (emphasis added). Thus, according to the specification, side effects identified in the written description are examples of side effects, "typically associated with beta-adrenergic drugs." Examination of the written description confirms that the written description does not indicate intent to cover all the possible side effects, but rather only those typically associated with beta-adrenergic drugs and the teratogenic effects which are caused by the S(+) isomer. By excluding those side effects that are not listed in the specification,

but that one of skill in the art at the time would typically associate with beta-adrenergic drugs, Barr construes the scope of the term "side effects" too narrowly.

4. Sepracor's proposed construction of the term "chronic administration" is incorrect to the extent it is not limited to periodic or prophylactic administration

Sepracor asserts that the term "chronic administration" means "to administer the drug to a human on a recurring basis to prevent or reduce the extent to which bronchospasms occur." (Sepracor Br. at 14). In explaining its definition of "recurring," Sepracor states that "if one used the drug on a recurring basis (*i.e.*, "periodically"), sometimes that use might be prior to the onset of an asthma attack (prophylactic use) or sometimes it might be after the onset of an attack (non-prophylactic use). (Sepracor Br. at 15). Although not entirely clear, it appears that Sepracor's definition of "chronic administration" includes administration after the onset of an asthma attack to treat that attack, e.g., non-prophylactic use. (Sepracor Br. at 15). To the extent Sepracor's proposed construction of the term "chronic administration" is not limited to periodic or prophylactic administration, and instead includes administration after the onset of an asthma attack for treatment of that attack, it is incorrect.

During prosecution of the application that matured into the '755 patent, and specifically in response to the Examiner's concern that there was no support in the specification for claims disclosing a method of "chronic" treatment, Sepracor submitted the declaration of T. Scott Johnson M.D. Dr. Johnson stated:

> [T]he concept of chronic administration is implicit in the description of modes of administration that is found in the specification. In particular…the concepts of the two modes of therapy (acute and chronic) are discussed. In the first mode (acute) the albuterol is administered "after onset of asthma". In the second, albuterol is administered "prophylactically, that is, before the bronchiospasm [sic] begins in an asthma attack, to prevent its occurrence . . ." To be noted is the distinction between asthma (a condition or disease state) and an asthmatic attack (an acute episode of coughing, wheezing or gasping), which often

> accompanies the general disease state. Asthmatic attacks can be treated acutely; asthma is treated chronically . . .

Ex. 10 at DLEV012281 (emphasis added). Thus, in defining chronic therapy, Dr. Johnson specifically distinguished between chronic treatment and acute treatment. The difference depends on whether the treatment occurs before or after an asthma attack. Chronic treatment is treatment administered to an individual with asthma prior to the commencement of an asthma attack to prevent an attack. Acute treatment is treatment administered to an individual with asthma after the onset of an attack to treat that asthma attack.

Dr. Johnson goes on to say:

> Thus, although the term "chronic" is not used, its implication is clear in the description of prophylactic therapy. . . . Thus the person of skill in the art would understand that the application was referring to chronic therapy when it speaks of either prophylactic or periodic administration.

Ex. 10 at DLEV012282 (emphasis added). According to Dr. Johnson, the terms prophylactic or periodic administration, both of which are found in the specification, would be understood by one of ordinary skill to refer to chronic treatment and not acute treatment. Dr. Johnson refers to "prophylactic" as meaning "before bronchiospasm [sic] begins in an asthma attack, to prevent its occurrence." Ex. 10 at DLEV012281. The term periodic was also used by Dr. Johnson in the context of treating an individual with asthma periodically before the occurrence of bronchospasm. Ex. 10 at DLEV012281-82.

Thus, the term "chronic administration" refers to either prophylactic or periodic therapy administered before the occurrence of an asthma attack.[5] To the extent Sepracor is arguing that chronic administration includes administration after the onset of an asthma attack for treatment

[5] In Sepracor's opening brief, Sepracor indicates that Dey's proposed definition for "chronic administration" is limited to prophylactic administration. (Sepracor Br. at 14). Dey never proposed such a definition. *See e.g.*, Ex. 21. Moreover, prior to Markman briefing, Dey's experts indicated that they understood "chronic administration" as used in the '755 patent to refer to either prophylactic or periodic administration. *See e.g.*, Ex. 26 at DLEV504914-16.

of that attack, its definition is unsupported by the specification and is contrary to the prosecution history, specifically the declaration Sepracor filed with the Patent Office to obtain allowance of the patent.

C. The Proper Construction of the Phrase "Chronically Administering" in the '755 Patent

The parties dispute the meaning of "chronically administering" found in claim 1 of the '755 patent. The table below summarizes the parties' proposed constructions for the term "chronically administering."

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"chronically administering"	To administer the drug to a human on a recurring basis to prevent or reduce the extent to which bronchospasms occur.	Treating periodically or prophylactically.	"Chronic" means "prophylactic or periodic."

The dispute here is identical to that of the disputed claim term "chronic administration," also found in claim 1 of the '755 patent. For the reasons stated above, the claim language "chronically administering" should be construed to mean treating periodically or prophylactically.

D. The Proper Construction of the Phrases "While Reducing Side Effects Associated with the Acute Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '994 Patent

The parties dispute the meaning of the term "side effects" within the phrase "while reducing side effects associated with the acute administration of racemic albuterol" and within the phrase "while simultaneously reducing undesirable side effects," which are both found in claim 1 of the '994 patent. The table below summarizes the parties' proposed constructions for the term "side effects" found within these phrases.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"side effects"	The side effects are those associated with acute administration of racemic albuterol. The side effects are not limited in scope to the examples that are specifically identified in the patent specification.	Beta-adrenergic side effects and teratogenic effects associated with the administration of racemic albuterol to a patient after the onset of an asthma attack that are caused directly by the S(+) enantiomer of albuterol.	Central nervous system effects (such as tremor, nervousness, shakiness, dizziness and increased appetite), cardiac effects (such as cardiac arrhythmia), and teratogenic effects associated with acute administration of racemic albuterol.

The dispute here is identical to that of the disputed claim term "side effects," found in claim 1 of the '755 patent. The parties agree that this Court should construe the term "side effects" in the same manner as it construes the term in the '755 patent. (*See* Sepracor Br. at 17; Dey Br. at 28; Barr Br. at 10). For the reasons stated above, the phrases "while reducing side effects associated with the acute administration of racemic albuterol" and "while simultaneously reducing undesirable side effects" should each be construed to mean reducing those beta-adrenergic side effects and teratogenic effects associated with the administration of racemic albuterol to a patient after the onset of an asthma attack, that are caused directly by the S(+) enantiomer of albuterol.

E. The Proper Construction of the Phrases "While Reducing Side Effects Associated with the Administration of Racemic Albuterol" and "While Simultaneously Reducing Undesirable Side Effects" in the '090 Patent

The parties dispute the meaning of the term "side effects" within the phrases "while reducing side effects associated with the administration of racemic albuterol" and "while simultaneously reducing undesirable side effects" found in claim 1 of the '090 patent. The table below summarizes the parties' proposed constructions for the term "side effects" found within these two phrases.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"side effects"	The side effects are those associated with the administration of racemic albuterol. The side effects are not limited in scope to the examples that are specifically identified in the patent specification.	Beta-adrenergic side effects and teratogenic effects associated with the administration of racemic albuterol that are caused directly by the S(+) enantiomer of albuterol.	Central nervous system effects (such as tremor, nervousness, shakiness, dizziness and increased appetite), cardiac effects (such as cardiac arrhythmia), and teratogenic effects associated with the administration of racemic albuterol.

The dispute here is identical to that of the disputed claim term "side effects," found in claim 1 of the '755 patent and claim 1 of the '994 patent. The parties agree that this Court should construe the term "side effects" in the same manner as it construes the term in the '755 and '994 patents. (*See* Sepracor Br. at 18-19; Dey Br. at 29-30; Barr Br. at 11).

F. The Proper Construction of the Phrase "Inducing Bronchodilation or Providing Relief of Bronchospasm" in the '002 Patent

The parties dispute the meaning of the phrase "inducing bronchodilation or providing relief of bronchospasm" found in claims 1 and 10 of the '002 patent. The table below summarizes the parties' proposed constructions for the phrase.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"inducing bronchodilation or providing relief of bronchospasm"	"Bronchospasm" means a contraction of smooth muscle in the walls of the bronchi and bronchioles, causing narrowing of the lumen, which is not limited to bronchospasms associated with asthma.	Treating asthma.	Treating asthma or an asthma attack.

Claims 1 and 10 of the '002 patent include the terms "bronchodilation" and "bronchospasm" in the phrase "inducing bronchodilation or providing relief of bronchospasm."

The parties dispute whether the scope of this phrase is limited to the treatment of asthma. In construing the claim, Sepracor has broken up the phrase to its component terms rather than construing the phrase as a whole. Thus, Sepracor's proposed construction is limited to the term "bronchospasm." (Sepracor Br. at 19-22). Dey's proposed construction provides a definition for the entire phrase "inducing bronchodilation or providing relief of bronchospasm."

Sepracor's proposed construction is incorrect for several reasons. First, the Federal Circuit has instructed that "[w]hile certain terms may be at the center of the claim construction debate, the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms." *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299 (Fed. Cir. 2003) (the correct meaning of the term "remote location" is informed by considering the surrounding text, "remote location beyond a range of direct mutual contact."). Sepracor's proposed definition considers the meaning of the term "bronchospasm" in isolation, and does not consider its meaning within the context of the remaining claim language.

Second, Sepracor argues that the term "bronchospasm" should be given its plain and ordinary meaning suggesting that only extrinsic evidence is necessary to define the phrase. (Sepracor Br. at 19). Sepracor's approach conflicts with Federal Circuit Law. In *Phillips*, the Federal Circuit held that courts "cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history." *Phillips*, 415 F.3d at 1313 (citing *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005)). Sepracor has provided a dictionary definition for the term "bronchospasm" but does not state how one of ordinary skill would understand the phrase as a whole in light of the specification and the prosecution history. *See Phillips*, 415 F.3d at 1319. Additionally, Sepracor provides no definition for the term "inducing bronchodilation."

The specification describes bronchodilation as part of the physiology of what occurs when asthma is treated. *See* Ex. 8 at DLEV011538, col. 1. ll. 54-56. Furthermore, the background of the invention explains that bronchodilators are used to treat asthma. Albuterol is most commonly used "to treat bronchial spasms associated with asthma and is the active component in well-known commercial bronchodilators such as Proventil and Ventolin." Ex. 5, at DLEV011525, col. 1 ll. 28-31. Bronchospasm is described in the specification as part of the pathophysiology of asthma. *See e.g.*, Ex. 8 at DLEV011538, col. 2.11.17-18 ("asthma relief (e.g., relief from bronchial spasms, shortness of breath)); Ex. 8 at DLEV011538 col. 1 1. 50 ("reduce bronchial spasms associated with asthma"). Thus, the specification indicates that in the context of the '002 patent "inducing bronchodilation or providing relief from bronchospasm" means treating asthma.

Citing *Vitronics Corp., v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996), Sepracor argues that there is no "clearly stated evidence in the intrinsic record that the Sepracor inventors intended to act as their own lexicographers and redefine the term bronchospasm to mean only those bronchospasms associated with 'asthma.'" (Sepracor Br. at 21). Sepracor is wrong. The prosecution history confirms that the Sepracor inventors intended the terms "inducing bronchodilation or providing relief of bronchospasm" to refer to treatment of asthma. As explained in Dey's opening brief, Sepracor stated during the prosecution of U.S. Patent Application 09/200,541, (a continuation of U.S. Application No. 09/063,551 which matured into the '002 patent) that "the claims of the issued patents 5,844,002; 5,760,090; 5,547,994; and 5,362,755 relate to methods for treating asthma." Ex. 20 at DLEV011571 (emphasis added). Thus, the Sepracor inventors unequivocally stated in the child application that the '002 patent relates to a method of treating asthma.

Furthermore, the text indicates that claims 1 and 10 are directed towards either "inducing bronchodilation or providing relief of bronchospasm." In other words, the act of inducing bronchodilation will result in relief of bronchospasm. This is consistent with the Dey's proposed construction that "inducing bronchodilation or providing relief of bronchospasm" refer to the treatment of asthma. Thus, read in the proper context and informed by the written description and the prosecution history, the phrase "inducing bronchodilation or providing relief of bronchospasm" must be construed to refer to a method of treating asthma.

G. The Proper Construction of the Phrases "While Reducing the Concomitant Liability of Adverse Effects Associated with Racemic Albuterol" and "While Simultaneously Reducing Said Adverse Effects" in the '002 Patent

The parties dispute the meaning of the term "adverse effects" within the phrases "while reducing the concomitant liability of adverse effects associated with racemic albuterol" and "while simultaneously reducing said adverse effects" found in claim 10 of the '002 patent. The table below summarizes the parties' proposed constructions for the term "adverse effects" found within these two phrases.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"adverse effects"	The adverse effects are those associated with the administration of racemic albuterol. The side effects are not limited in scope to the examples that are specifically identified in the patent specification.	Beta-adrenergic side effects and teratogenic effects associated with the administration of racemic albuterol that are caused directly by the S(+) enantiomer of albuterol.	Central nervous system effects (such as tremor, nervousness, shakiness, dizziness and increased appetite), cardiac effects (such as cardiac arrhythmia), and teratogenic effects associated with the administration of racemic albuterol.

The dispute here is identical to that of the disputed claim term "side effects," found in claim 1 of the '755 patent, claim 1 of the '994 patent and claim 1 of the '090 patent. The only difference is the use of the term "adverse effects" instead of "side effects." The parties agree that the term "adverse effects" may be used interchangeably with the term "side effects." (Sepracor

Br. at 19; Dey Br. at 32; Barr Br. at 11). The parties also agree that this Court should construe the term "side effects" in the same manner as the '755, '994 and '090 patents. (*See* Sepracor Br. at 18-19; Dey Br. at 32; Barr Br. at 10-11). For the reasons stated above, the term "adverse effects" within the phrases "while reducing the concomitant liability of adverse effects associated with racemic albuterol" and "while simultaneously reducing said adverse effects" should be construed to mean reducing those beta-adrenergic side effects and teratogenic effects associated with the administration of racemic albuterol that are caused directly by the S(+) enantiomer of albuterol.

H. The Proper Construction of the Phrases "Treating Bronchospasm in a Patient with Reversible Obstructive Airway Disease" and "Preventing Bronchospasm in a Patient with Reversible Obstructive Airway Disease" in the '993 Patent

The parties dispute the meaning of the phrases "treating bronchospasm in a patient with reversible obstructive airway disease" and "preventing bronchospasm in a patient with reversible obstructive airway disease" found in claims 1 and 10 of the '993 patent. The table below summarizes the parties' proposed constructions for the disputed phrases.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"treating bronchospasm in a patient with reversible obstructive airway disease"	"bronchospasm" means a contraction of smooth muscle in the walls of the bronchi and bronchioles, causing narrowing of the lumen, which is not limited to bronchospasms associated with asthma Reversible obstructive airway disease has its plain meaning.	Treating an asthma patient after the onset of an asthma attack (acute treatment).	Treating asthma or an asthma attack.

Disputed Term / Phrase	Sepracor's Proposed Construction	Dey's Proposed Construction	Barr's Proposed Construction
"preventing bronchospasm in a patient with reversible obstructive airway disease"	"bronchospasm" means a contraction of smooth muscle in the walls of the bronchi and bronchioles, causing narrowing of the lumen, which is not limited to bronchospasms associated with asthma. Reversible obstructive airway disease has its plain meaning.	Chronically treating a patient for asthma.	Preventing asthma or an asthma attack.

As it did with the claims of the '002 patent, Sepracor seeks to separate the terms of claim elements when suggesting how they should be construed. Thus, they separate "treating bronchospasm" from "reversible obstructive airway disease" and define the terms out of the context of the claim as a whole. For the same reasons described with respect to the '002 patent above, the Court must reject this attempt to alter the meaning of the terms by taking them out of context. *See Brookhill-Wilk 1*, 334 F.3d at 1299.

Sepracor does not even suggest a definition for reversible obstructive airway disease. Rather, it suggests the Court give the term its "plain and ordinary meaning." (Sepracor Br. at 23 n. 14). The reason Sepracor suggests no meaning is clear. To construe the claim elements "treating bronchospasm in a person with reversible obstructive airway disease" and "preventing bronchospam in a person with reversible obstructive airway disease" the terms must be read as a complete phrase and considered in the context of the intrinsic evidence. *Brookhill-Wilk 1*, 334 F.3d at 1299. As discussed in Dey's Opening Brief, asthma is the only disease identified in the patent specification and bronchospasm is a symptom of asthma. A person of ordinary skill in the art reading the patent would, therefore, understand the term treating bronchospasm in a person with reversible obstructive airway disease to mean treating asthma.

On the top of page 24 of its opening brief, Sepracor quotes the preliminary amendment to the application which matured into the '993 patent and argues that it "demonstrates that the inventors did not consider the term 'reversible obstructive airway disease' to equate to 'asthma.'" However, Sepracor neglected to put the entire quote in its brief. When read in its entirety, Sepracor's argument for patentability of the claims actually supports Dey's interpretation of the claim terms.

> In previous applications in this series, claims have been allowed to 'a method of treating asthma' (08/691,604) to 'a method for inducing brochodilation or providing relief of bronchospasm' (09/063,551) and to "a method of treating an acute attack of asthma" (08/335,480). Applicants respectfully submit that new claims 13-29 to "a method of treating bronchospasm in a patient with reversible obstructive airway disease" and to a method of preventing bronchospasm in a patient with reversible obstructive airway disease "are allowable with a terminal disclaimer for reasons for record in the parent applications 09/063,551 and 08/691,604."

Ex. 14 at DLEV012406 (emphasis added). As discussed in Dey's opening brief, during the prosecution of the U.S Patent Application No. 09/200,541, the parent of U.S. Patent Application No. 09/466,107 ("the '107 application"), Sepracor told the Patent Office that "[t]he claims of the issued patents 5,844,002, 5,760,090, 5,547,994 and 5,362,755 relate to methods for treating asthma." Ex. 20 at DLEV011571. In arguing that the claims of the '107 application (which matured into the '993 patent) were patentable, Sepracor told the Patent Office that the '107 application was patentable for reasons of record in the prosecution of two patents directed towards methods of treating asthma. Accordingly, the claim elements "treating bronchospasm in a patient with reversible obstructive airway disease" and "preventing bronchospasm in a patient with reversible obstructive airway disease" must be construed to mean treating an asthma patient asthma attack after the onset of that asthma attack and chronically treating an asthma patient for asthma, respectively.

Sepracor also argues that "the inventors specifically chose to use the broader term "reversible obstructive airway disease instead of the narrower term 'asthma'" implying that reversible obstructive airway disease "as used in the claims must be broader." (*See* Sepracor Br. at 23-24). However, the reason Sepracor chose to obtain patent claims with the specific language "a method of treating bronchospasm in a person with reversible obstructive airway disease" and "a method of preventing bronchospasm in a patient with reversible obstructive airway disease" is clear upon looking at the label of Sepracor's Xopenex® product. The label states that Xopenex® is indicated "for the treatment or prevention of bronchospasm in adults and adolescents 12 years of age and older with reversible obstructive airway disease." Ex. 1 at SEP9001815 (emphasis added.) Sepracor wanted a patent which claimed the exact language in its label to ensure that generic products (whose label by law must be the same as the brand's label) would be required to be indicated for Sepracor's patented use.[6] *See* 35 U.S.C. § 355(j)(2)(A)(v).

[6] In a letter dated March 26, 1999, the FDA warned Sepracor that the statement in its Xopenex® launch materials which stated "Xopenex® . . . for treatment and prevention of bronchospasm" was misleading because it "lacks important context to explain that bronchodilator therapy is a rescue asthma therapy for bronchospasm." Ex. 27 at SEP0615038. At that time, Sepracor had been granted the '002 patent for a method of "inducing bronchodilation or preventing bronchospasm." Perhaps, concerned that the FDA letter provided a basis for generics to argue use of their products will not infringe the '002 patent, Sepracor filed in December 1999 a patent with claim language identical to the labeled indication.

III. CONCLUSION

For the foregoing reasons, Dey respectfully requests that the Court enter an order construing the phrases of the method-of-use patents as proposed by Dey.

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